

Application No. 10/763,062  
Amendment Dated January 13, 2005  
Reply to Office Action dated September 13, 2004

**Remarks**

Claims 1-7 are pending.

Claims 1-7 stand rejected.

Claims 1 and 4 are amended.

Claims 1-7 are submitted herein for review.

No new matter has been added.

In the Office Action the Examiner has rejected claims 1-3 under 35 U.S.C. § 102(b) as being anticipated by Buse (U.S. Patent No. 4,545,585). Additionally, the Examiner has rejected claims 4-7 under 35 U.S.C. § 103(a) as being unpatentable over Buse in view of Wolfl et al. (U.S. Patent No. 5,346,379).

Applicants respectfully disagree with the Examiner's contentions and submit the following remarks in response.

The present invention as claimed in claim 1 is directed to a seal adapted to be mounted in a groove around an orifice of a measuring chamber inserted in an insertion direction into a tank to form a fluid meter. The seal has a radially elastic torus having a shape substantially corresponding to that of the orifice and an arrangement extended away from at least one of the sides of the seal. The arrangement is substantially parallel to the side of the seal and the insertion direction, so as to immobilize the seal in a direction opposite said insertion direction.

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In this arrangement, an improved seal is provided to seal the connection between the inlet/outlet orifice of a piston type fluid measuring chamber and the inlet/outlet pipe entering the tank in which the measuring chamber is inserted. See Figures 1 and 2 of the present invention.

As noted in paragraph 1, page 2 of the present specification, prior art seals for sealing between the measuring chamber and the inlet/outlet pipes are typically placed in a groove on the outside of the measuring chamber near the inlet/outlet orifice. This seal must extend beyond the top of the groove in which it is placed in order to form a good seal between the chamber and the tank. However, when the measuring chamber is inserted into the tank in the insertion direction, the seal frequently rubs against the inside wall of the tank, becoming dislodged from the groove, damaging the seal and rendering the measuring chamber ineffective.

The present invention overcomes the drawback associated with the prior art by providing arrangement that is substantially parallel to the side of the seal and an insertion direction. Thus, in this configuration, the arrangement immobilizes the seal in a direction opposite said insertion direction, so that when, for example, the measuring chamber is inserted in the insertion direction into the tank it does not become dislodged from the groove.

Furthermore, the present invention as claimed in claim 4, is directed to a seal as claimed in claim 1, mounted in a groove around the orifice having two walls integral with the measuring chamber or the tank, in the fluid meter, the immobilizing arrangement is nested in at least one opening in one of the walls of the groove. This arrangement further immobilizes the seal in a direction opposite said insertion direction by having the immobilization arrangement of seal nested into an opening in the side of the groove, providing additional resistance to movement

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during insertion.

The first reference cited by the Examiner for rejecting claim 1, namely Buse, teaches a molded seal gland with a groove for cooling fluids. The Examiner has contended that the seal shown in Buse has a central opening 33 and bolt hole opening 37 in the corners which form an arrangement parallel to the insertion direction for immobilizing in a direction opposite of an insertion direction.

However, such a seal is unlike the present invention. The bolt holes 37 of the Buse reference are not extended away from at least one of the sides of the seal but instead are formed within the four sides of the molded seal gland. Furthermore the bolt holes 37 of Buse are not substantially parallel to said side of the seal, but rather are disposed perpendicular to the side edges of the seal.

As such, there is no teaching or suggestion in Buse, that discloses all of the elements of claim 1. For example, there is no teaching or suggestion in Buse that discloses an arrangement extended away from at least one of the sides of the seal, where the arrangement is substantially parallel to the side of the seal and the insertion direction, so as to immobilize the seal in a direction opposite the insertion direction.

Turning to the rejection of claim 4, the Examiner has cited to the Wolfl reference which discloses an extruding device for extruding plastic tubing. The Examiner cites this reference, claiming that it shows a fluid meter and a measuring chamber. The Examiner combines the teachings of this reference with the seal from Buse and claims that the limitations recited in

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claim 4 are obvious.

However, for the reasons set forth above, Applicants submit that the Buse reference does not teach all of the elements of the seal from claim 1. Furthermore, the Wolfl reference is directed to a plastic extruding device but in no way shows a seal as claimed in claim 1, mounted in a groove around the orifice having two walls integral with the measuring chamber or the tank, in the fluid meter, where the immobilizing arrangement is nested in at least one opening in one of the walls of the groove. Wolfl show no such openings in a groove, where the seal fits in the groove and the immobilizing arrangement of the seal passes through, and is thus nested in, an opening in the groove.

Therefore, there is no teaching or suggestion in Buse or Wolfl, either alone or in combination with one another, for all of the elements as claimed in claim 4. For example, there is no teaching or suggestion in either Buse or Wolfl, either alone or in combination with one another that teaches or suggests *a seal as claimed in claim 1*, mounted in a groove around the orifice having two walls integral with the measuring chamber or the tank, in the fluid meter, where the *immobilizing arrangement is nested in at least one opening in one of the walls of the groove*.

As such, Applicants respectfully request that the rejection of independent claim 1 be withdrawn. Furthermore, as claims 2-7 depend therefrom, Applicants request that the rejection be withdrawn for the same reasons.

In view of the forgoing, Applicants respectfully submit that pending claims 1-7 are in condition for allowance, the earliest possible notice of which is earnestly solicited. If the

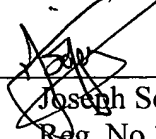
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Examiner feels that an interview would facilitate the prosecution of this Application he is invited to contact the undersigned at the number listed below.

Respectfully submitted,

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Dated: 1/13/05